



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/824,055	04/14/2004	William T. Newport	ROC920030403US1	6098
46797 7590 04/27/2007 IBM CORPORATION, INTELLECTUAL PROPERTY LAW DEPT 917, BLDG. 006-1 3605 HIGHWAY 52 NORTH ROCHESTER, MN 55901-7829			EXAMINER MERCHANT, SHAHID R	
			ART UNIT	PAPER NUMBER
			3694	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		04/27/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

## Office Action Summary

Application No.

10/824,055

Applicant(s)

NEWPORT, WILLIAM T.

Examiner

Shahid R. Merchant

Art Unit

3694

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 14 April 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
- Paper No(s)/Mail Date \_\_\_\_\_

- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date: \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Objections*

1. Claims 2, 5, 13 and 14 objected to because of the following informalities: the term if so is ambiguous. Appropriate correction is required.

### *Claim Rejections - 35 USC § 112*

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:  
  
The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
3. Claims 1, 6, 12 and 17 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
4. Claim 1 recites the limitation "the exchange" in lines 3 and 6. There is insufficient antecedent basis for this limitation in the claim.
5. Claim 1 recites the limitation "the volume" in line 5. There is insufficient antecedent basis for this limitation in the claim.
6. Claim 6 recites the limitation "the maximum" in line 1. There is insufficient antecedent basis for this limitation in the claim.

7. Claim 12 recites the limitation "the exchange" in lines 4 and 7. There is insufficient antecedent basis for this limitation in the claim.
8. Claim 12 recites the limitation "the volume" in line 6. There is insufficient antecedent basis for this limitation in the claim.
9. Claim 17 recites the limitation "the exchange" in lines 3, 6 and 8. There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 102***

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

11. Claims 1-20 rejected under 35 U.S.C. 102(e) as being anticipated by Serkin et al, U.S. Patent Application Publication 2003/0229567 (see PTO-892, Ref. A).
12. As per claim 1, Serkin teaches a method for dynamically scaling order processing in a securities exchange, comprising:

Art Unit: 3694

maintaining one or more books for a security at the exchange, wherein the one or more books each list orders related to the security (see paragraph 31);

monitoring the volume of orders related to the security received at the exchange (see paragraph 47);

varying the number of books maintained for the security based on the monitored volume of orders (see paragraph 47); and

distributing orders related to the security and received at the exchange among the books maintained for the security (see paragraphs 45-47).

13. As per claim 2, Serkin teaches the method of claim 1 as described above. Serkin further teaches wherein varying the number of books maintained for the security based on the monitored volume of orders comprises:

determining if the monitored volume of orders related to the security exceeds a maximum threshold value (see paragraph 47); and

if so, opening a new book for the security (see paragraph 47).

14. As per claim 3, Serkin teaches the method of claim 2 as described above. Serkin further teaches wherein opening a new book for the security comprises creating a logical partition (see paragraph 47).

Art Unit: 3694

15. As per claim 4, Serkin teaches the method of claim 2 as described above. Serkin further teaches wherein opening a new book for the security comprises allocating one or more processors to the new book (see paragraphs 46-47).

16. As per claim 5, Serkin teaches the method of claim 2 as described above. Serkin further teaches wherein varying the number of books maintained for the security based on the monitored volume of orders further comprises:

determining if the monitored volume of orders related to the security falls below a minimum threshold value (see paragraphs 46-47); and

if so, closing one or more books maintained for the security (see paragraphs 46-47).

17. As per claim 6, Serkin teaches the method of claim 5 as described above. Serkin further teaches wherein the maximum and minimum threshold values are different (see paragraph 47).

18. As per claim 7, Serkin teaches the method of claim 1 as described above. Serkin further teaches wherein maintaining one or more books for the security at the exchange comprises maintaining at least one book for the security on at least two different servers (see paragraph 46).

Art Unit: 3694

19. As per claim 8, Serkin teaches the method of claim 1 as described above. Serkin further teaches wherein monitoring the volume of orders related to the security received at the exchange comprises dividing the total volume of orders related to the security received at the exchange by the number of books maintained for the security (see paragraphs 31 and 45-47).

20. As per claim 9, Serkin teaches the method of claim 1 as described above. Serkin further teaches further comprising publishing the top of each book maintained for the security (see paragraphs 3, 5, 36, 37 and 42).

21. As per claim 10, Serkin teaches the method of claim 9 as described above. Serkin further teaches further comprising matching an order listed on one of the books maintained for the security with one of the other books maintained for the security (see paragraphs 40, 41 and 43).

22. As per claim 11, Serkin teaches the method of claim 9 as described above. Serkin further teaches further comprising matching an order listed on one of the books maintained for the security with a book maintained for the security at another exchange (see paragraph 32).

23. Claims 12 and 17 are in parallel with claim 1 and are rejected for at least the same reason as set forth above (see also paragraphs 67 and 68).

24. Claims 13 and 14 are in parallel with claim 2 and are rejected for at least the same reason as set forth above.

25. As per claim 15, Serkin teaches the computer-readable of claim 12 as described above. Serkin further teaches comprising providing an interface allowing an administrator to specify the maximum threshold value (see paragraph 47).

26. Claim 16 is in parallel with claim 8 and is rejected for at least the same reason as set forth above.

27. As per claim 18, Serkin teaches the exchange of claim 17 as described above. Serkin further teaches wherein the one or more books maintained for the security at the exchange comprises:

at least a first book for the security maintained on a first server; and

at least a second book for the security maintained on a second server (see paragraph 46).

28. As per claim 19, Serkin teaches the exchange of claim 17 as described above. Serkin further teaches wherein the one or more books are maintained on a computer system having multiple logical partitions (see paragraph 47).



Art Unit: 3694

29. As per claim 20, Serkin teaches the exchange of claim 19 as described above. Serkin further teaches wherein each book is assigned to a different logical partition (see paragraph 47).

### ***Conclusion***

The Examiner has cited particular columns and line numbers in the references as applied to the claims for the convenience of the applicant. Although the specified citations are representative of the teachings in the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant, in preparing the responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the examiner.

The following prior art, which is made of record but not relied upon, is considered pertinent to applicant's disclosure.

B. U.S. Patent Application Publication 2003/0225673

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shahid R. Merchant whose telephone number is 571-270-1360. The examiner can normally be reached on First Friday Off.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James P. Trammel can be reached on 571-272-6712. The fax phone

Art Unit: 3694

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

SRM

  
ELLA COLBERT  
PRIMARY EXAMINER